JAN 2 3 2006

FORM	PTO-1449
MODII	FIED

# TATENT AND TRADEMARK OFFICE

INFO	<b>PRMATION</b>	DISCLOS	SURE	First Named Inventor	PANIGRAHY, RINA
STA'	TEMENT BY	Y APPLIC	CANT	Group Art Unit	2161
•		, ,		Examiner Name	METJAHIC, SAFET
Sheet	1	of	3	Attorney Docket No.	47380

**Application Number** 

Filing Date

10/801,907

March 15, 2004

PENDING U.S. PATENT APPLICATIONS							
EXAMINER'S INITIALS	Cite No.	Application Number	Filing Date	Name of Applicant			
			(MM-DD-YYYY)				
Be	AA	10/165,590	06-08-2002	Panigrahy et al.			

EXAMINER'S INITIALS	Cite No.	OTHER DOCUMENTS
AL	AB	LAMPSON ET AL., "IP Lookups Using Multiway and Multicolumn Search," IEEE Transactions on Networking, Vol. 7, No. 3, June 1999, pp. 324-334.
	AC	SRINIVASAN ET AL., " Fast Address Lookups Using Controlled Prefix Expansion," ACM Transaction on Computer Systems, Vol. 17, Issue 1, pp. 1-40, February 1999.
	AD	DOERINGER ET AL., Routing on longest-matching prefixes," IEEE/ACM Transactions on Networking, Vol. 4, No. 1, pp. 86-97, Feb. 1996.
\ <u>\</u>	AE	UGA ET AL., "A Fast And Compact Longest Match Prefix Look-Up Method Using Pointer Cache For Very Long Network Address," Computer Communications and Networks, Eighth International Conference, pp. 595-602, 1999.

Considered	Examiner Signature		Date Considered	06-05-2007
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FORM PTO MODIFIED		EPARTMENT OF	Application Number	10/801,907	
				Filing Date	March 15, 2004
INFORMATION DISCLOSURE			SURE	First Named Inventor	PANIGRAHY, RINA
STATEMENT BY APPLICANT				Group Art Unit	2161
·			Examiner Name	METJAHIC, SAFET	
Sheet	2	of	3	Attorney Docket No.	47380

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EXAMINER'S INITIALS	Cite No.	OTHER DOCUMENTS
AC	ВА	DONALD R. MORRISON, "PATRICIA - Practical Algorithm to Retrieve Information Coded in Alphanumeric," Journal of the ACM, Vol. 15, No. 4, October 1968, pp. 514-534.
	ВВ	WALDVOGEL ET AL., "Scalable High Speed IP Routing Lookups," Proc. SIGCOMM '97, ACM, 1997, pp. 25-36.
	ВС	LAMPSON ET AL., "IP Lookups Using Multiway and Multicolumn Search," Proc. Infocom 98, March 1998, 24 pages.
	BD	V. SRINIVASAN and GEORGE VARGHESE, "Faster IP Lookups using Controlled Prefix Expansion," ACM SIGMETRICS Performance Evaluation Review, Vol. 26 No.1, June 1998, p.1-10.
	BE	STEFAN NILSSON and GUNNAR KARLSSON, "Fast Address Look-up for Internet Routers," Proceedings of IEEE Broadband Communications, April 1998, 12 pages.
	BF	WILLIAM N. EATHERTON, HARDWARE-BASED INTERNET PROTOCOL PREFIX LOOKUPS, Master's thesis, Sever Institute, Washington University, St. Louis, MO, May 1999, 109 pages.
	BG	LOCKWOOD ET AL., "Field Programmable Port Extender (FPX) for Distributed Routing and Queuing," Proceedings of the ACM/SIGDA international symposium on Field programmable gate arrays, February 2000, pp. 137-144.
	вн	RUIZ-SANCHEZ ET AL., "Survey and Taxonomy of IP Address Lookup Algorithms," IEEE Network Magazine, Vol. 15, No. 2, March/April 2001, pp. 8-23.
	BI	PANKAJ GUPTA and NICK MCKEWON, "Algorithms for Packet Classification," IEEE Network Magazine, Vol. 15, No. 2, March/April 2001, pp. 24-32.
	BJ	IYER ET AL., "ClassiPI: An Architecture for Fast and Flexible Packet Classification," IEEE Network Magazine, Vol. 15, No. 2, March/April 2001, pp. 33-41.
V	BK	WALDVOGEL ET AL., "Scalable High Speed Prefix Matching," ACM Transactions on Computer Systems, Vol. 19, No. 4, November 2001, pp. 440-482.

Examiner Signature	Date Considered	06-05-2007
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FORM PTO- MODIFIED		PARTMENT OF T AND TRADEN		Application Number	10/801,907
MODIFIED	PATEN	I AND IKADEN	Filing Date	March 15, 2004	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			First Named Inventor	PANIGRAHY, RINA	
			CANT	Group Art Unit	2161
				Examiner Name	METJAHIC, SAFET
Sheet	3	of	3	Attorney Docket No.	47380

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EXAMINER'S INITIALS	Cite No.	OTHER DOCUMENTS
AL	CA	DEVAVRAT SHAH AND PANKAJ GUPTA, "Fast Incremental Updates on Ternary-CAMs for Routing Lookups and Packet Classification," Proc. Hot Interconnects VIII, August 2000, Stanford. IEEE Micro, vol. 21, no. 1, January/February 2001, 9 pages.
	СВ	Waldvogel et al., "Scalable Best Matching Prefix Lookups," PODC 98, ACM 1998.
	СС	RADIA PERLMAN, INTERCONNECTIONS: BRIDGES, ROUTERS, SWITCHES, AND INTERNETWORKING PROTOCOLS, Second Edition, Addison-Wesley, 2000, pp. 347-365.
	CD	PANKAJ GUPTA AND NICK MCKEOWN, "Algorithms for Packet Classification," IEEE Network Special Issue, March/April 2001, vol. 15, no. 2, pp 24-32 (reprint 29 pages).
	CE.	Srinivasan et al., "Packet Classification Using Tuple Space Search," ACM Computer Communication Review, 1999. ACM SIGCOMM'99, Sept. 1999 (12 pages).
	CF	Srinivasan et al., "Fast and Scalable Layer Four Switching," ACM Computer Communication Review, 28(4):191-202, 1998. ACM SIGCOMM'98, Sept. 1998 (12 pages).
V	CG	STEFAN NILSSON AND GUNNAR KARLSSON, "IP-Address Lookup Using LC-Tries," IEEE Journal on Selected Areas in Communications, June 1999 (12 pages).

Examiner Signature	Date Considered	06-05-2007
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### **ELECTRONIC INFORMATION DISCLOSURE STATEMENT**

#### Electronic Version v18

Stylesheet Version v18.0

Title of Invention

Identification of a longest matching prefix based on a search of intervals corresponding to the prefixes

**Application Number:** 

10/801907

3071

Confirmation Number: First Named Applicant:

Rina Panigrahy

Attorney Docket Number:

47380

Art Unit:

2161

Examiner:

safet Metjanic Angele Lie

Search string:

( 5781722 or 5848416 or 6115716 or 5528701 or 5651099 or 5721899 or 5781431 or 5829004 or 5995971 or 6041053 or 6298339 or 6334153 or 6356951 or 5088032 or 5809501 or 5884297 or 6018524 or 6067574 or 6141738 or 6237061 or 6289414 or 6243667 or 6236658 or 5740171 or 6295576 or 5920886 or 6560610 or 6389506 or 6374326 or 6775737 or 6717946 or 6862281 or 6377577 or 6658002 or 5857196

or 5781772 or 6725326 or 6564211 or 6341346 or 5920857 or 6741985 ).pn

#### **US Patent Documents**

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init.	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
n	1	5781722	1998-07-14	Wilkinson, III et al.		395	600
1	2	5848416	1998-12-08	Tikkanen		707	101
	3	6115716	2000-09-05	Tikkanen et al.		707	100
$\sqcap$	. 4	5528701	1996-06-18	Aref		382	178
П	5	5651099	1997-07-22	Konsella		395	13
	6	5721899	1998-02-24	Nambia		395	603
$\neg \sqcap$	7	5781431	1998-07-14	Duret et al.	•	700	28
	8	5829004	1998-10-27	Au		707	100
	9	5995971	1999-11-30	Douceur et al.		707	100
	10	6041053	2000-03-21	Douceur et al.		370	389
$\neg \sqcap$	11	6298339	2001-10-02	Bjornson	B1	707	3
	12	6334153	2001-12-25	Boucher et al.		709	230
	13	6356951	2002-03-12	Gentry, Jr.		709	217
	14	5088032	1992-02-11	Bosack		395	200
	15	5809501	1998-09-15	Noven		707	7
	16	5884297	1999-03-16	Noven		707	1
11	17	6018524	2000-01-25	Turner et al.		370	392
A	18	6067574	2000-05-23	Tzeng		709	247

-				141			
AC	19	6141738	2000-10-31	Munter et al.		711	206
	20	6237061	2001-05-22	Srinivasan et al.	B1	711	108
	21	6289414	2001-09-11	Feldmeier et al.	B1	711	108
	22	6243667	2001-06-05	Kerr et al.	B1	703	27
П	23	6236658	2001-05-22	Essbaum et al.	B1	370	401
$\Box$	24	5740171	1998-04-14	Mazzola et al.		370	392
	25	6295576	2001-09-25	Ogura et al.	B1	711	108
$\Box$	26	5920886	1999-07-06	Feldmeier		711	108
	27	6560610	2003-05-06	Eatherton et al.			·
	28	6389506	2002-05-14	Ross et al.			
	29	6374326	2002-04-16	Kansal et al.			
	30	6775737	2004-08-10	Warkhede et al.			
	31	6717946	2004-04-06	Hariguchi et al.	•		
	32	6862281	2005-03-01	Chandrasekaran			
	33	6377577	2002-04-23	Bechtolsheim et al.			
	34	6658002	2003-12-02	Ross et al.			
	35	5857196	1999-01-05	Angle et al.			
	36	5781772	1998-07-14	Wilkinson, III et al.			
	37	6725326	2004-04-20	Patra et al.			
	38	6564211	2003-05-13	Andreev et al:			
	39	6341346	2002-01-22	Benayoun et al.			
	40	5920857	1999-07-06	Rishe et al.			
4	41	6741985	2004-05-25	Green			
						<u> </u>	

## Signature

Examiner Name	Date		
Angela Lie	06-05-2007		